STUDIES ON AMPHIPODS OF VISAKHAPATNAM COAST[1]

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(With three plates)

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During a survey of amphipod fauna of Waltair coast, some gammaridean amphipods were encountered. Nine species belonging to five families and nine genera are described. The order Amphipoda comprises four sub-orders the Gammariidea, Hyperiidea, Caprelliidea and Ingolfelliidea. According to Barnard (1969) the constant presence of atleast 6 pairs of thoracic appendage, five pairs of gills and four pairs of brood lamellae in females are distinctive characters of Gammariidea and Hyperiidea.

Some of the recent contributions on the taxonomy of amphipods are those of Bellan-Santini and Dauvin (1981), Dickinson (1982), Goeke and Heard, Jr. (1983, 1984), Andres (1985), Goeke (1985, 1987), Thomas and Barnard (1986) and Locke and Corey (1989).

Samples were collected twice a week by towing a plankton net for a definite time. Each sample was used for numerical estimation and identification in living condition. All collections were made in Lawson's Bay, 1 km away from the coast. Samples collected during June, 1984 and May, 1987 form the material for the present study.

Family Ampeliscidae
Genus *Ampelisca* Krøyer

Ampelisca zamboangae Stebbing
(Plate 1, Figs. 1-10)

Body transparent. The distinguishing character is the fifth peraepod (Fig. 1). The expanded second joint reaches beyond the third joint. The flagellum and antenna of female have three segments. Coxal plate of first gnathopod (Fig. 4) broader towards the distal end fringed with plumose setae, second joint of second gnathopod elongate, devoid of setae, fifth and sixth joints subequal and setose, sixth narrow distally. Peraeopod description is similar to that given by Sivaprakasam (1966). The outer ramus of the third uropod is longer than the inner ramus. There are four spines on the outer surface and three setae on the inner surface of the outer ramus. There is a deep notch in the telson, each lobe bearing a spine and four setae at its distal end.

Length: 4.5 mm.

Occurrence: Lawson's Bay — 3 males; 3 females.

Distribution: Philippines, Sri Lanka, East Indies, Arabian Sea, Red Sea and Bay of Bengal.

Family Haustoridae
Genus *Urothoe* Dana
Urothoe ruber Giles
(Plate 1, Figs. 11-14)

Remarks: Fairly common in plankton.

Head slightly reduced. A common form in the plankton. First antenna 5-jointed with a 2-jointed accessory flagellum. Second antenna longer than the body.

First gnathopod subchelate. Fifth joint longer than sixth. There are long setae on the second joint. In the second gnathopod, fifth joint is narrower than that of the gnathopod one. Sixth joint apically produced to form chela with dactylus. Long setae on 2nd and 3rd joints. The first two peraeopods are alike (Fig. 12). Fourth joint long, sixth joint club-shaped and bears stout spines. Seventh joint cannot be distinguished from the spines of the sixth joint.

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The joints of the third peraeopod and plumose setae. Fourth and fifth peraeopods have a flat joint.

Uropod 1 and 2 are alike. In the third uropod (Fig. 14) the rami are flattened and bear long plumose setae along the margins. The cleft telson has five distal spines.

Length: Male 3.3 mm; Female 4.4 mm.

Distribution: Bay of Bengal.

Genus *Platyischnopus* Stebbing

Platyischnopus herdmanii Walker

(Plate 1, Figs. 15-17)

A number of males and a few females were seen in plankton. Rostrum oblong. Head fairly long, longer than the first four segments put together. First antenna with a two jointed accessory flagellum. Antenna extends beyond the body. Second antenna shorter than the first.

First gnathopod has a distally expanded second joint (Fig. 15). Third and fourth joints subequal in length. Sixth joint forms a chela with the seventh. Second gnathopod similar to the first. The structure of the peraeopods agree with the description given by Walker (1904). First two peraeopods similar with a distally expanded fourth joint. Fifth peraeopod long and narrow. Telson cleft, each lobe with a strong stouter tooth and 2 distal setae.

In the third uropod the inner ramus is small with a pointed apex. The outer ramus is 2-jointed with a spine-like second joint.

Occurrence: Lawson's Bay — throughout the year.

Distribution: Sri Lanka, South Africa, Arabian Sea and Bay of Bengal.

Family Oedicerotidae

Genus *Perioculodes* O. Sars

Perioculodes megapleon (Giles)

(Plate 2, Figs. 18-26)

Body uniformly broad, with a short rostrum. Pleon segments large. First antenna short, stout, with the peduncle bearing setae. Flagellum 9-jointed and fringed with fine hairs. The joints of the peduncle of second antenna decrease in width. In male, the flagellum is longer than the body.

The two gnathopods are similar, subchelate. First gnathopod with second joint very long and slender. Palm slightly oblique, with fine teeth. Second gnathopod similar to first, but slightly longer. Palm more oblique than the first. Seventh joint forms a chela with the fifth.

First and second peraeopods similar. Fourth, fifth and sixth segments properly setose. Sixth segment with 3 spines, seventh indistinguishable from setae. In the third peraeopod, second segment is broader. Third is small, rest are slender; long hairy setae on every segment. Dactylus spiniform, with a fringe of hairy setae. Fourth peraeopod is slightly longer than the third. Fifth leg (Fig. 23) is longer than the preceding legs.

Uropods (Figs. 24-26) are similar in structure. Peduncle longer than the rami, with terminal spines. Rami fringed with setae on both margins. The length decreases successively from first to third uropod. Telson bilobed, with four setae.

Family Gammaridae

Genus *Hornellia* Walker

Hornellia incerta Walker

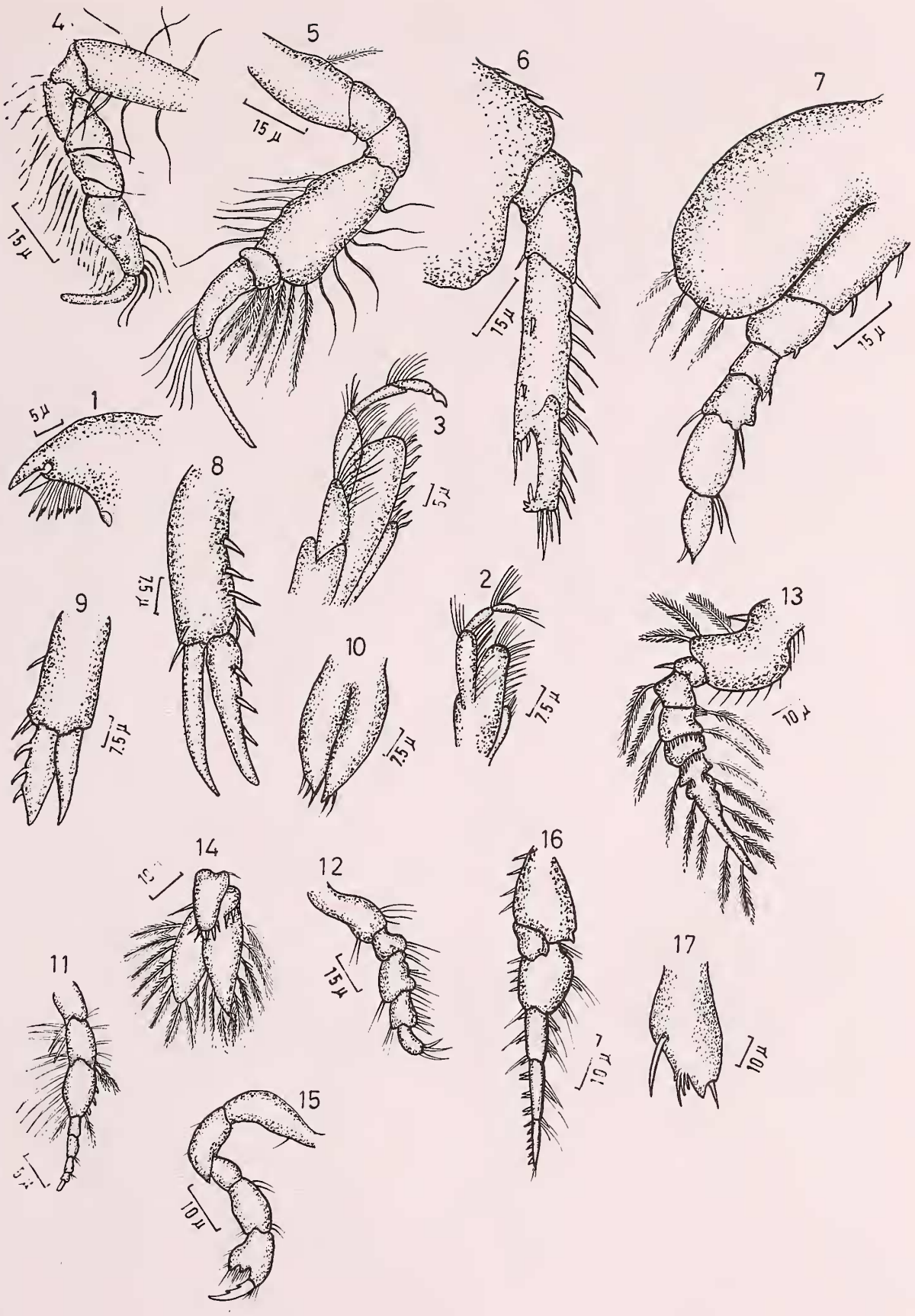
(Plate 2, Figs. 27-29)

Body has serrated pleon segments. Peduncle of first antenna fringed with short hairs. A long 20-jointed flagellum and 2-jointed accessory flagellum. Flagellum longer in males than in females. In the first maxilla, the second joint of the palp has small spines alternating with larger spines unlike that observed by Walker (1905).

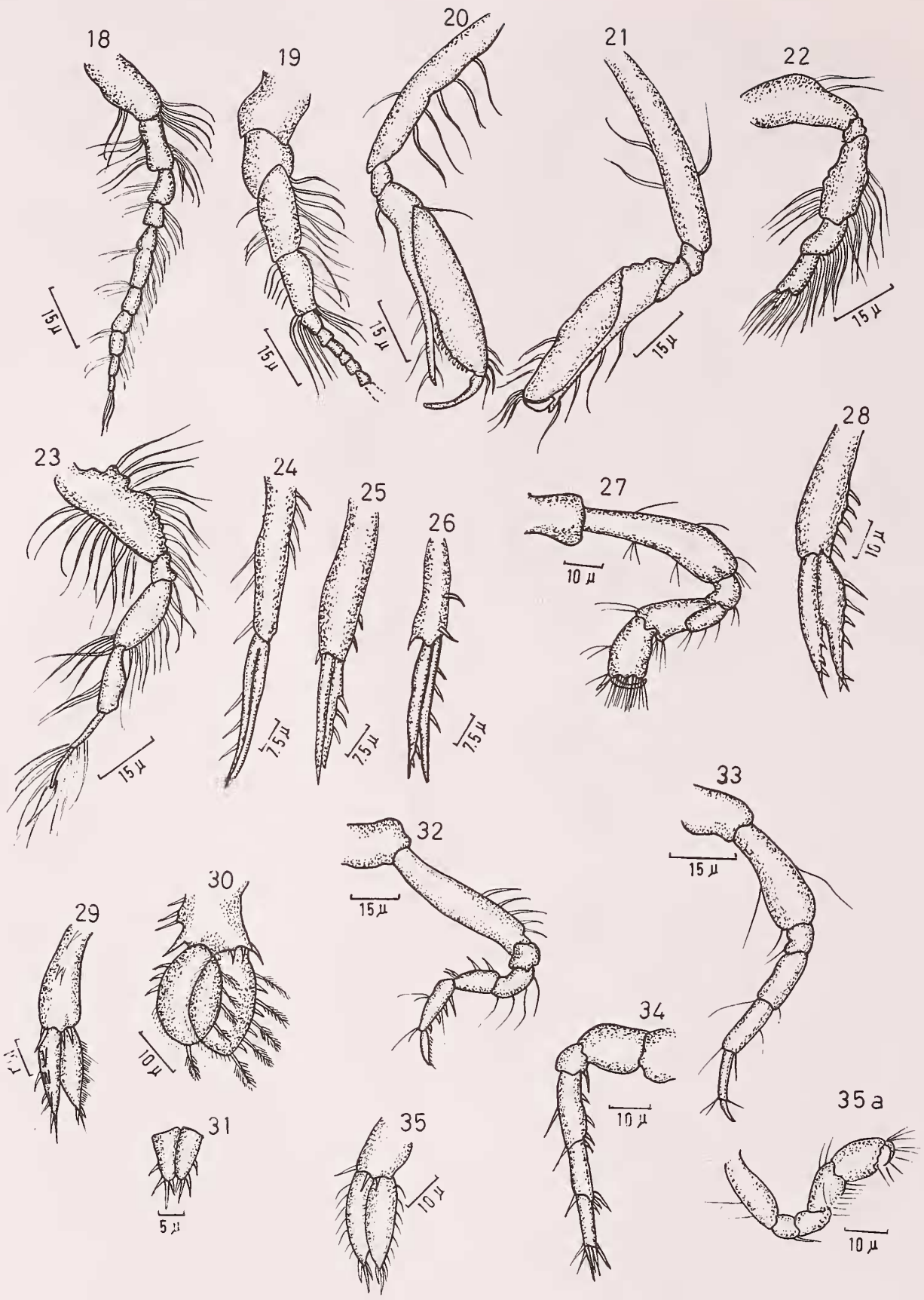
Both gnathopods similar with triangular fifth joint. Palm border possesses spines (Fig. 27). Except the first two, all other peraeopods are long, with all segments spiny. Firt uropod (Fig. 28) is the longest and reaches slightly beyond the third uropod. Outer ramus of the first and second uropods shorter than the inner. Rami of third uropod (Fig. 29) unequal, inner border with a few plumose setae.

Length: 4.0 mm.

Occurrence: Lawson's Bay.



Figs. 1-10. *Ampelisca zamboangae* Stebbing: 1. Mandible; 2. Maxilla; 3. Maxilliped; 4. Gnathopod 1; 5. Peraeopod 1; 6. Peraeopod 4; 7. Peraeopod 5; 8. Uropod 1; 9. Uropod 2; 10. Telson.
Figs. 11-14. *Urothoe ruber* Giles: 11. Antenna; 12. Peraeopod 2; 13. Peraeopod 3; 14. Uropod 3 with telson.
Figs. 15-17. *Platyischnopus herdmanii* Walker: 15. Gnathopod 1; 16. Peraeopod 5; 17. Telson.



Figs. 18-26. *Perioculodes megapleon* (Giles): 18. Antennule; 19. Antenna; 20. Gnathopod 1; 21. Gnathopod 2; 22. Peraeopod 1; 23. Peraeopod 5; 24. Uropod 1; 25. Uropod 2; 26. Uropod 3.
Figs. 27-29. *Hornellia incerta* Walker: 27. Gnathopod 2; 28. Uropod 1; 29. Uropod 3.
Figs. 30-31. *Megaluropus agilis* Hoek: 30. Uropod 3; 31. Telson.
Figs. 32-35. *Pseudotiron brevidactylus* Pillai: 32. Gnathopod 2; 33. Peraeopod 2; 34. Peraeopod 5; 35. Uropod 3.
Fig. 35a. *Parelasmophus suluensis* Stebbing: Gnathopod 2.